

REMARKS

Status of the Claims

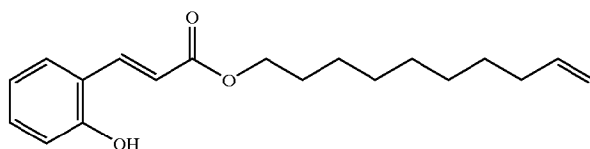
Claims 2, 4 – 6, 10 – 12, 16 – 17, and 21- 23 remain pending. Claims 3 and 7-9 have been canceled. Claims 13 – 15 and 18 – 20 remain withdrawn, but claims 13 and 18 have been amended to reference only the remaining pending composition claims. Applicants reserve the right to pursue any and all canceled claims and/or subject matter by one or more continuing or divisional applications.

Rejection of Claims under 35 U.S.C. § 103

Claims 2, 4 – 6, 10 – 12, 16 – 17, and 21- 23 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over the disclosure of Rock (US 6,022,529) in view of Miracle (US Pat. Appl. Pub. No. 2002/00491450 A1).

Rock has been cited by the Office because it "discloses a chemical structure identical to the species being examined as well as a carrier for topical administration. Rock does not, however, disclose a fragrance molecule at the R1 group." Action ¶ 6.

The Miracle reference is cited to provide the general teachings regarding photoactivation as a way to release fragrances. For example, Miracle has been cited for the *general* idea that fragrances can be released from a composition via photoactivation (*see* Action ¶ 7). And, that such fragrance molecules can be "attached to a variety of ketones, esters, and other oxygen containing organic compounds." Action ¶ 7. The Office also observed that "[t]he R1 group of Rock can be an ester or a biomolecule." Action ¶ 7. The Office notes a compound "on the top of



page 10" in Miracle, is a fragrance and a product of photoactivation. Action ¶ 7. And, the Office notes that "Rock is to be used with fragrances." Action ¶ 8 (citing Rock at col. 5, ll. 50-58).

The Office concluded that "it would have been obvious ... to attach the fragrance molecule of Miracle to the precursor group of Rock to impart a fragrance onto the compound of Rock." Action ¶ 8. The Office reasoned that since Miracle shows that "the fragrance molecule [the cited compound in Miracle] is capable of being a product of photochemical rearrangement,"

and since "Rock is to be used with fragrances ... it would have been obvious to impart the same advantages taught by both Rock and Miracle – namely, to provide advantage from photochemical rearrangement – to combine the references." Action ¶ 8.

Upon a close review of the Office Action, Applicants note that the only substantial difference between the present rejection in view of Miracle and the preceding and withdrawn rejection in view of Anderson is the following statement in ¶ 7 of the present Action:

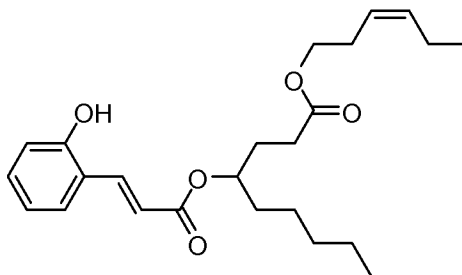
These molecules contain fragrance precursors (paragraph 43) and are to be used in topical creams and sprays for human hygiene products, including skin protectants (paragraph 148) and sunscreens (paragraph 153).

The remainder of the Office Action is nearly verbatim from the previous action, except for replacing Anderson for Miracle. The preceding statement appears to be the basis for the Office's allegation that Miracle "cures the deficiencies" of Anderson for lack of proper motivation to combine the references with Rock to yield the presently claimed invention. Action ¶ 2.

Applicants respectfully traverse and reference the current state of the law with respect to obviousness as detailed in the response filed on February 22, 2010. Again, the Office has failed to assert a *prima facie* case of obviousness against the pending claims.

First, while Miracle teaches the use of fragrance precursors in a sunscreen, at paragraph 153, such are merely taught as a *separate* component within the carrier formulation. That is, although Miracle notes that the fragrance precursors can be used in sunscreens, such a disclosure does not suggest the desirability to modify a sunscreen molecule itself, such as the compounds of Rock, to include a fragrance *as an integral part of the same molecule*.

Second, even if one were to assume that the teachings of Miracle suggested chemically modifying a sunscreen agent to include a fragrance, Miracle does not suggest to one skilled in the art which of the many sunscreen agents to select for modification. In particular, the Action does not provide any reasoned basis for asserting that the skilled worker would select the photofragmentable benzoin of Rock for use with or in place of the photoactivated fragrance compositions of Miracle. Miracle only provides a single photoactivated compound (at the top of page 10), which contains an *o*-hydroxy-(E)-cinnamate group, just as Example 50 in Anderson. For reference, Example 50 in Anderson contained the compound:



As noted in the Applicant's previous response, such compounds photoactivate upon exposure to light to generate an *o*-hydroxy-(*Z*)-cinnamate group which can intramolecularly cyclize to exude an attached molecule. Such compounds do not photofragment as the result of homolytic bond cleavage, for example, by cleavage of a bond alpha to a benzoin carbonyl as in the Rock compounds. Thus, in view of the distinctly different decomposition mechanism of the compound disclosed in Miracle, the Action does not provide any reasoned basis for one skilled in the art to select a photofragmentable Rock compound for modification with a fragrance.

Third, Miracle does not suggest to one skilled in the art and the Office has not otherwise identified a reason one skilled in the art would make the particular modification of the Rock compounds necessary to yield to the claimed molecules as required by *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.* See 492 F.3d 1350, 1357 (Fed. Cir. 2007) (In cases involving new chemical compounds, it is necessary to "identify some reason that would have led a chemist to modify a known compound in a particular manner to establish prima facie obviousness of a new claimed compound")

Finally, the generic teachings of the Miracle reference fall squarely within the exceptions set forth in *In re O'Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988), describing when something that *may* be obvious to try is *not* obvious. Specifically, the court stated the law as follows:

The admonition that "obvious to try" is not the standard under § 103 has been directed mainly at two kinds of error. In some cases, what would have been "obvious to try" would have been to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful. E.g., *In re Geiger*, 815 F.2d 686, 688 (Fed. Cir. 1987); *Novo Industri A/S v. Travenol Laboratories, Inc.*, 677 F.2d 1202, 1208 (7th Cir. 1982); *In re Yates*, 663 F.2d 1054, 1057 (CCPA 1981); *In re Antonie*, 559 F.2d 618, 621 (C.C.P.A. 1977). In others, what was "obvious to try" was to explore a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only guidance as to the particular form of the claimed invention or how to achieve it. *In re Dow Chemical Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988); *Hybritech, Inc. v.*

Monoclonal Antibodies, Inc., 802 F.2d 1367, 1380 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987); *In re Tomlinson*, 363 F.2d 928, 931 (CCPA 1966).

This reasoning has been expressly adopted by the Federal circuit post-*KSR*. *In re Kubin*, 561 F.3d at 1359.

In light of the preceding deficiencies, the Office has not provided a proper *prima facie* case of obviousness of the present claims over Rock in view of Miracle. Applicants respectfully request reconsideration and withdrawal of the rejection.

Conclusion

Applicants respectfully submit that all requirements of patentability have been met. Allowance of the claims and passage of the case to issue are therefore respectfully solicited. If the Examiner has any questions or comments regarding this Amendment, they are encouraged to contact the undersigned as indicated below.

Respectfully submitted,
McDonnell Boehnen Hulbert & Berghoff LLP

Date: November 24, 2010

By: /Timothy M. Long/
Timothy M. Long, Ph.D.
Reg. No. 59,652